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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/976,299	10/12/2001	Matthew J. Knox	14064	1841
7590		06/04/2004	EXAMINER	
Sally J. Brown		DUNN, DAVID R		
Autoliv ASP, Inc.		ART UNIT		
3350 Airport Road		PAPER NUMBER		
Ogden, UT 84405		3616		

DATE MAILED: 06/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/976,299

Applicant(s)

KNOX, MATTHEW J.

Examiner

David Dunn

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WU

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-26, 30-48, 52, 53, 55 and 57-59 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-26, 30-48, 52, 53, 55 and 57-59 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

This Office Action is responsive to the amendment filed January 5, 2004.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 6, 7, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Corrion et al. (5,742,986) alone.

Corrion et al. discloses a method of controlling the activation of occupant restraints in a motor vehicle for a high g event, said method comprising upon sensing said event, activating an automatic locking restraint of a seat belt, activating a seat belt pretensioner; and activating an air bag (see column 5, lines 34-40; see also Figure 9).

Corrion et al. discloses that the deployment of the protection devices may comprise sequential deployment with a predetermined timing (see column 5, lines 45-48), but does not specifically state the order as claimed by applicant.

As Corrion et al. discloses a sequential, timed deployment, it would have been obvious to one of ordinary skill in the art at the time the invention was made to deploy the three protection devices in any order preferred, such as first activating the locking restraint, then the pretensioner, and then the air bag as desired in order to best protect the occupant.

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With respect to claims 6 and 7, while Corrion et al. does not describe a specific time period, the use a predetermined time period is disclosed, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to activate the restraints at any necessary time, such as 0 to 10 milliseconds.

With respect to claim 55, Corrion et al. inherently has a memory medium to operate the controller (208).

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Corrion et al. in view of Omura et al. (5,552,986).

Corrion et al. is discussed above and does not show the automatic locking restraint being enabled prior to the occurrence of the event.

Omura et al. teaches enabling and activating the ALR prior to occurrence of the event (see Figure 2; S5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Corrion et al. with the teachings of Omura et al. in order better protect the occupant by anticipating the high g event.

4. Claims 1, 3, 6, 7, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fohl (5,346,152) in view of Takeuchi et al. (5,338,063).

Fohl discloses a method of controlling the activation of occupant restraints in a motor vehicle for a high g event, said method comprising: upon sensing the event, activating the locking restraint of a seat belt and activating a pretensioner of the seat belt after the activating the automatic locking restraint (see column 4, lines 12-13).

Fohl fails to show activating an air bag after the pretensioner.

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Takeuchi et al. teaches a method of first activating a pretensioner and then activating the air bag (see abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fohl with the teachings of Takeuchi et al. in order to provide an additional restraint step to further protect the occupant. (It is also noted that Fohl does not explicitly state that the locking restraint is activated after sensing the event, it is old and well known, and common, in the art to activate the locking restraint after sensing the high g event, and if it is found that it is not inherent in Fohl to do so, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fohl to activate the locking restraint after sensing the event in order to provide a simple method of protecting the occupant.)

With respect to claims 6 and 7, while Fohl and Takeuchi et al. do not describe a specific time period, the use a predetermined time period is disclosed, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to activate the restraints at any necessary time, such as 0 to 10 milliseconds.

With respect to claim 55, Takeuchi et al. discloses a memory medium (see RAM and ROM, Figure 3) and it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the memory medium to control all of the occupant protection devices.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fohl in view of Takeuchi et al. and in further view of Omura et al. (5,552,986).

The combination of Fohl and Takeuchi et al. is discussed above and does not show the automatic locking restraint being enabled prior to the occurrence of the event.

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Omura et al. teaches enabling and activating the ALR prior to occurrence of the event (see Figure 2; S5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Fohl and Takeuchi et al. with the teachings of Omura et al. in order better protect the occupant by anticipating the high g event.

6. Claims 8-16, 25, 26, 30-38, 47, 48, 52, and 57-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foo et al. in view of Corrion et al.

Foo et al. discloses a method of managing the occupant restraints in a vehicle, including (a) determining if a seat belt is buckled (see Step 210 in Figure 5B), and (b) in response to (a) enabling or disabling a pretensioner (see Figure 4, fire or no-fire conditions). Foo et al. also (c) determines if the weight in the seat is less than a threshold (as shown in Figure 4) to enable or disable the pretensioner. Foo et al. discloses a multi-stage airbag (20) that can be disabled or enabled based upon various weight and/or buckle conditions (see Figure 4). Foo et al. inherently includes a memory medium in the control matrix (72).

With respect to claim 57, Foo et al. discloses a weight sensor which can inherently determine if the seat is unoccupied; further Foo et al. also shows an occupant presence detector (142). Foo et al. also discloses determining if the seat belt is extended (see payout sensor; column 4, lines 55-56).

Foo et al. fails to disclose the sequence of activating the ALR, the pretensioner, and then the airbag.

Corrion et al. is discussed above.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Foo et al. with the teachings of Corrion et al. in order to provide a sequenced order of activating the ALR, then the pretensioner, and then the airbag in order to better protect the occupant.

With respect to claims 10, 13, 14, 16, 26, 26, 32, 35, 36, 38, 47, and 48, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Foo et al. with the teachings of Corrion et al. in order to enable or disable the ALR of Corrion et al. as required dependent upon certain conditions in order to better protect the occupant.

7. Claims 17 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foo et al. in view of Corrion et al. as applied above, and further in view of Mazur et al. (6,203,059).

The combination of Foo et al. and Corrion et al. is discussed above and fails to show signaling an alert.

Mazur et al. teaches signaling an alert (see column 5, lines 11-15) in an unsafe condition.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Foo et al. and Corrion et al. with the teachings of Mazur et al. in order to warn the occupant in the case of an unsafe condition.

8. Claims 18-24, 40-46, and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foo et al. in view of Corrion et al. as applied above, and further in view of Sakai et al. (6,467,804).

The combination of Foo et al. and Corrion et al. is discussed above and fails to show a step of determining if the belt is tightened.

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Sakai et al. discloses a method comprising: (a) determining a weight in a seat of the vehicle from measurements obtained by a weight sensor system (see column 4, lines 12-20 and Step 108 in Figure 5); (b) determining if a seat belt of the seat is tightened by comparing values obtained by the weight sensor system at the rear right and rear left of the seat (see column 4, lines 40-45); and if determining that the belt is tightened by comparing the loads to a threshold value, disabling the air bag (column 5, lines 5-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the combination of Foo et al. and Corrion et al. with the teachings of Sakai et al. in order to better determine the position of the occupant or determine if a child seat is present to better protect the occupant.

Response to Arguments

9. Applicant's arguments filed January 5, 2004 have been fully considered but they are not persuasive.

On page 14, Applicant discusses the 103 rejection of Corrion et al., arguing that "there is no suggestion of activating an automatic locking restraint, activating a pretensioner after activating the automatic restraint, and activating an air bag after activating the pre-tension." As discussed in the rejection above, Corrion et al. discloses a method controlling each of these elements. Further, as also discussed above, Corrion et al. discloses that the deployment of these devices may comprise a sequential deployment with a predetermined timing. As Corrion et al. does not disclose a specific order, it is maintained that the control of the devices is open to any order. Therefore, it would have been well within the skill level of one of ordinary skill in the art,

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using the general knowledge available to one of ordinary skill in the art, to modify this reference to use the devices in the order as claimed to best protect the occupant.

On pages 14-15, Applicant argues the combination of Fohl and Takeuchi et al. Applicant argues that "there is no suggestion to the desirability of the combination of Fohl with Takeuchi." The examiner maintains that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fohl with the teachings of Takeuchi et al. in order to better protect the occupant. As discussed above, Fohl teaches the method of step A (locking restraint) then step B (pretension). Takeuchi teaches the method of step B followed by step C (air bag). As Takeuchi teaches the step B as shown by Fohl, would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Fohl with the teachings of Takeuchi to follow the step B with step C in order to better protect the occupant.

Regarding the arguments on page 15 concerning the combination of Foo and Corrion et al., applicant does not provide any other specific arguments other than referencing the previously discussed Corrion et al. Therefore, the combination of Foo and Corrion et al. is maintained as being obvious to one of ordinary skill in the art as discussed in the rejection above.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

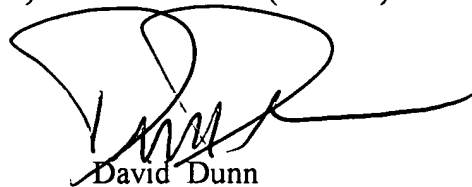
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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Dunn whose telephone number is 703-305-0049. The examiner can normally be reached on Mon-Thur, alt. Fridays, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on 703-308-2089. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David Dunn
Primary Examiner
Art Unit 3616